AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): Apparatus for plasma treating a substrate comprising : a chamber; a gas flow system configured to cause a flow of at least one gas within said chamber and to remove said gas from said chamber;
a plasma generator for causing the at least one gas within the chamber to form a plasma, said plasma generator comprising an induction coupled plasma source having an RF coil encircling said chamber, thereby generating at least one species said plasma being generated in a plasma generation region extending between a wall of said chamber which is proximal to said RF coil, and a first width which is distal from said RF coil; and
a guide for directing the gas flow containing the species towards said substrate to be treated, said guide defining a path through which said at least one gas and said at least one species flow from said plasma generating region to said substrate;
said guide having an entrance and an exit, said entrance having a second width and being disposed proximal to said plasma generating region, said exit having a third width and being disposed proximal to said substrate to be treated;
said second width being greater than said first width, and said third width is less than said first width, said guide being configured such that at least one gas is directed toward said substrate to be treated.

Claim 2 (Original): Apparatus according to claim 1, wherein the guide is adapted to direct towards the substrate at least the species generated substantially at or adjacent the periphery of the plasma.

Claim 3 (Previously Presented): Apparatus according claim 1, further comprising a gas inlet for supplying said at least one gas into said chamber and a deflector device within the chamber for directing the at least one gas

introduced into the chamber towards at least one most active region of the plasma.

Claim 4 (Previously Presented): Apparatus according to claim 1, wherein at least part of the guide is substantially curved in section.

Claim 5 (Previously Presented): Apparatus according to any of claims 1, wherein the guide is substantially linear in section.

Claim 6 (Original): Apparatus according to claim 5, wherein the guide is substantially a hollow conical frustum.

Claim 7 (Previously Presented): Apparatus according to claim 1, wherein the guide is provided with asymmetrical walls between said entrance and exit and wherein said center of said guide is disposed asymmetrically with respect to said substrate, resulting in a bulk flow of said at least one species across the substrate.

Claim 8 (Previously Presented): Apparatus according to claim 1, wherein the guide is disposed to prevent line of sight between said substrate to be treated and said plasma generating region so as to shield the substrate from electromagnetic radiation originating from the plasma.

Claim 9 (Previously Presented): Apparatus according to claim 1, wherein the guide further comprises a plasma termination device disposed between said plasma generating region and said substrate so as to attenuate the supply of electrically charged species to the substrate.

Claim 10 (Previously Presented): Apparatus according to claim 9, wherein the plasma termination device is an electrically conducting mesh.

Claim 11 (Original): Apparatus according to claim 10, further comprising an electrical power supply for powering the electrically conducting mesh.

Claim 12 (Original): Apparatus according to claim 9, wherein the plasma termination device is a magnet.

Claim 13 (Previously Presented): Apparatus according to claim 1, wherein an internal surface of said guide between said entrance and said exit is configured to prevent quenching of active species within said flow of at least one gas.

Claim 14 (Currently Amended): Apparatus according to claim 1, further comprising a guide heating system arranged to heat the guide to a predetermined temperature when in use.

Claim 15 (Previously Presented): Apparatus according to claim 1, wherein the guide is detachable.

Claim 16 (Previously Presented): Apparatus according to claim1, wherein the guide is formed from the chamber walls.

Claim 17 (Cancelled).

Claim 18 (Previously Presented): Apparatus according to claim 1, further comprising a support for supporting the substrate.

Claim 19 (Original): Apparatus according to claim 18, wherein the support is located within the chamber.

Claim 20 (Previously Presented): Apparatus according to claim 18, wherein

the support is moveable so as to provide a variable distance between the plasma and the substrate.

Claim 21 (Previously Presented): Apparatus according to claim 18, wherein the guide is mounted to the support.

Claim 22 (Previously Presented): Apparatus according to claim 18, further comprising an electrical supply system adapted to supply electrical power to the support.

Claim 23 (Previously Presented): Apparatus according to claim 1, wherein the guide has an external dimension just less than that of the chamber such that, during use the guide undergoes thermal expansion and comes into thermal contact with the chamber.

Claim 24 (Previously Presented): Apparatus according to claim 1, wherein the guide further comprises an underside surface arranged to recompress the plasma as it flows substantially radially in a region adjacent the edge of the substrate.

Claim 25 (Currently Amended): A method for plasma treating a substrate comprising: causing at least one gas to flow within a chamber; forming a plasma from the at least one gas within the chamber using a plasma generator said plasma generator comprising an induction coupled plasma source having an RF coil encircling said chamber, , thereby generating at least one species; and directing the gas flow containing the species towards the substrate with a guide having a opening proximate to said plasma generating region having a diameter greater than that of an opposing opening proximate to said substrate ; wherein the width of the plasma in use is greater than that of the substrate, the difference between the widths defining an outer region of plasma proximal to a wall of said chamber encircled by said RF coil, and wherein the species are

directed from substantially all of the outer region, towards the substrate.

Claim 26 (Cancelled).

Claim 27 (Original): A method according to claim 26, wherein an electrical power is provided to the substrate so as to control the interaction of the species with the substrate.

Claim 28 (Original): A method according to claim 27, wherein the electrical potential is an RF potential.

Claim 29 (Previously Presented): A method according to claim 25, wherein the gas pressure within the chamber is in the range 1 to 15 Pa.

Claim 30 (Previously Presented): A method according to claim 25, wherein the at least one gas comprises at least one gas selected from the group of gases consisting of SF6, chlorine, fluorocarbon compounds, nitrogen, oxygen silane and combinations thereof.

Claim 31 (Previously Presented): A method according to claim 25, wherein the power input of the plasma generator is about 5 kW.

Claim 32 (Previously Presented): A method according to claim 25, wherein the gas flow rate is about 500 standard cubic centimeters per minute.

Claim 33 (Previously Presented): A method according to claim 25, wherein the plasma treatment comprises an etching treatment.

Claim 34 (Previously Presented): A method according to claim 25, wherein the plasma treatment comprises a deposition treatment.

Claim 35 (Previously Presented): A method according to claim 25, wherein at least the species generated substantially at or adjacent the periphery of the plasma are guided onto the substrate.

Claim 36 (Previously Presented): A method according to claim 25, further comprising directing the at least one gas introduced into the chamber towards the most active region (s) of the plasma.

Claim 37 (Previously Presented): A method according to claim 25, further comprising causing a flow of the species across the substrate.

Claim 38 (Cancelled).

Claim 39 (Previously Presented): The apparatus according to claim 11, wherein the plasma termination device comprises an electrically conductive grid mesh mounted to the guide and through which the gas flow passes when travelling between the entrance opening and exit opening of the guide.

Claim 40 (New): The method according to claim 36, wherein said most active region of said plasma is said outer region, wherein said outer region encloses an inner region, and wherein more of said at least one gas entering the chamber is directed to said outer region rather than said inner region.